

Amendments to the Specification

Please replace paragraph [0014] with the following amended paragraph:

[0014] Although not a requirement, a particularly preferred stage drive mechanism is an interchangeable microscope stage drive, for direct hand engagement for actuation of the drive system for adjusting the specimen slide in the optical path in both the x and y axes. This ergonomic stage drive can be detachably employed on either the right or left bottom-side of the microscope stage, depending on the needs of a particular user, and especially where a microscope is shared by multiple users. Typically, within this group of users are found those that favor either the right or left hand for positioning of the specimen ~~[[slid]]~~ slide on the stage. Accordingly, the interchangeable stage drive mechanism possesses the convertibility feature for ergonomically accommodating both right and left handed users. Hence, the stage of the microscope stage assembly of this invention also comprises a first engagement means for detachably securing a microscope stage drive mechanism at a first location on the stage, and a second engagement means for detachably connecting the microscope stage drive mechanism at a second location on the stage.

Please replace paragraph [0015] with the following amended paragraph:

[0015] This interchangeable microscope stage drive mechanism suitable for detachably securing to the bottom side of a microscope stage at more than one location of the stage is described in detail in ~~[[a]]~~ copending US Application U.S. Patent Application Serial No. 10/810,773, entitled "Interchangeable Microscope Stage Drive Assembly", filed on even date herewith, the Application being incorporated-by-reference herein.

Please replace paragraph [0020] with the following amended paragraph:

[0020] It should be appreciated at the outset that while the present invention relates to ~~[[an]]~~ "Shielded-Ergonomic Microscope Stages", the Assignees of the present Application for Patent have developed certain other improvements to microscopes described in ~~United States~~

~~Patent Applications~~ “~~Interchangeable Microscope Stage Drive Assembly~~”, U.S. Patent Application Serial No. 10/811,346, entitled “Releasable / Interchangeable Fine Focus Knob for a Microscope”, U.S. Patent Application Serial No. 10/811,344, entitled “Ergonomically Arranged Object Adjustment Controls”, U.S. Patent Application Serial No. 10/810,980, entitled “Lamp Assembly for a Microscope” and U.S. Patent Application Serial No. 10/811,348, entitled “Means for Transporting a Microscope”, which applications are filed concurrently herewith by the Assignees of the present Application for Patent, which Applications are incorporated herewith by reference in their entireties.

Please replace paragraph [0026] with the following amended paragraph:

[0026] Drive 27 (Figs. 2-8 and 10) is that of an interchangeable stage drive mechanism comprising drive shaft 29, first stage positioning knob 18 for movement of the stage along the y-axis, and second stage positioning knob 20 for movement of carriage 30 and mount 16 in the x-axis direction. Drive shaft 29 comprises outer drive shaft 22 (Fig. 10) and inner drive shaft 48. Drive 27 is arranged to be detachably secured to the underside of stage 14 (Figs. 4-8 and 10) in a plurality of locations designated as mounting holes 24 and 26 to comfortably accommodate both right hand users (Figs. 4 and 6) and left hand users (Figs. 5 and 7). As previously discussed, the first stage positioning knob 18 is fixedly secured to drive outer drive shaft 22 to effect forward and backward movements of stage 14 relative to stage mounting plate 34. In this configuration, pinion 58 of drive 27 is located at the terminus of outer drive shaft 22, opposite first stage positioning knob 18. The teeth of pinion 58 engage teeth 60 of rack 38, the latter of which is rigidly mounted to stage mounting plate 34, causing forward and backward movement of stage 14 relative to mounting plate 34 when rotational force is applied by the operator to knob 18, causing pinion 58 to rotate. When drive 27 is installed in left hole 26, teeth of pinion 58 engage teeth 62 of rack 40, the latter of which is rigidly mounted to stage mounting plate 34, causing forward and backward movement of stage 14 relative to mounting plate 34 when rotational force is applied by the operator to knob 18, causing pinion 58 to rotate.

Please replace paragraph [0032] with the following amended paragraph:

[0032] Fig. 10 is a cross-sectional view of the microscope stage drive assembly of the present invention, taken generally along line ~~[[9-9]]~~ 10-10 of Fig. 9. It can be seen in Fig. 10 that outer drive shaft 22 and inner drive shaft 48 are operatively arranged in a co-axial orientation. First stage positioning knob 18 is attached to outer drive shaft 22. Second stage positioning knob 20 is attached to inner drive shaft 48. The terminus of inner drive shaft 48, opposite second stage positioning knob 20, as depicted in this embodiment is a frustoconical plunger head 50, although other shapes of the plunger head are possible. Spring 52 is biased to provide an engagement force between plunger head 50 and drive pulley 56.

Please replace paragraph [0034] with the following amended paragraph:

[0034] Figs. 11 and 12 further illustrate the ergonomics of stage 14 with rounded rims at both stage edges ~~[[66]]~~ 68 and at stage corners 67. While the upper edges and corners of the stage floor are shown as rounded, the invention contemplates embodiments wherein rounded rims extend to both the upper and lower edges of the stage. While this feature of the stage is illustrated with continuous rims that are rounded for maximum comfort for the user, a stage with rounded edges and corners may be applied to limited sections of the stage, wherein only portions of the stage have rounded corners and edges. The present invention thus contemplates rounded rims and corners which may be partial, and not run for the continuous length of the edges of the microscope stage, or run continuously, or in other words for the complete or substantially complete length of the edge and corners of the stage. The objective is to modify those portions the stage having relatively sharp pressure points the users hands would otherwise make contact with during the so-called "hand-drive" technique in adjusting the specimen slide, or upon placement of a specimen slide on the stage.